

## SYSTEM AND METHOD FOR ABATING THE SIMULTANEOUS FLOW OF SILANE AND ARSINE

### Abstract

5 A system and method for abating a simultaneous flow of silane and arsine contained in an exhaust gas of DRAM processing chamber (12). The system includes a CVD abatement apparatus (20) and a resin-type adsorber (22). The CVD abatement apparatus comprises an enclosure (24) that defines a chamber (26) for receiving the exhaust gas. The enclosure contains a plurality of removable substrates (32) arranged as a series of baffles inside the enclosure. As the exhaust gas flows through the CVD abatement apparatus, the  
10 silicon within the silane is deposited as a film upon the substrates by chemical vapor deposition. The arsine continues to flow through the CVD apparatus to the adsorber where it is adsorbed by the resin contained therein. After the film has reached a particular thickness, the substrates can be removed from the enclosure, cleaned of the film and returned to the enclosure for further use.

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